

5/16/2018

Print



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	P D	
P0039766	MES002-VC	1	1	Net 30	M304TS0.750W.049	304 Sq Tube .75X.75X.049W : MATERIAL: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBING AS PER ASTM A554 MILL FINISH OR: ASTM A269 MILL FINISH receive ft				400	5/18/2018	160		S071984	Stock	5/16/2018	\$ 3.80 / ft	0		
		2			M304TS0.750W.065	304 Sq Tube .75X.75X.065W : MATERIAL: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBING AS PER ASTM A554 MILL FINISH OR: ASTM A269 MILL FINISH receive ft						400		S071985	Stock	5/16/2018	\$ 2.75 / ft	0		
		3			M304B1.500X1.500	M304 Bar 1.500 x 1.500 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft				12		12		S071986	Stock	5/16/2018	\$ 39.80 / ft	0		
		4			MT-4140-S-1.000X10.000	AISI 4140 Steel Sheet/Plate							12		S071987	Stock	5/16/2018	\$ 88.60 / ft	0	
		5			MT-4140-S-1.750X10.000								12		S071988	Stock	5/16/2018	\$ 151.68 / ft	0	
		6			MT-4140-S-0.750X2.250	4140 Steel Bar 0.750 X 2.250 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft				6		6		S071989	Stock	5/16/2018	\$ 20.67 / ft	0		
		7			MT-4140-S-1.500X2.000	4140 Steel Bar 1.500 X 2.000 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft						6		S071990	Stock	5/16/2018	\$ 28.99 / ft	0		
		8			M4140H-R0.375	4140 Round Bar .375 : AISI 4140H ROUND BAR PER AISI4140OR ASTM A304-02/-A-434-BC/-A193-03- GRADE B7/-A29-03/-A322-1 OR UNS#-G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft				12		15		S071991	Stock	5/16/2018	\$ 5.85 / ft	0		
Total:										860		623								

METAUX SOLUTIONS INC
2625 BOUL JACQUES CARTIER EST
LONGUEUIL, QUEBEC
J4N 1L7
Tel.: 450 641-3330

Shipping Order

15/05/2018

Order : 134879
Reference : 39766
Bid : 27221
Ship : PICK UP / PICK UP

Customer: 6323336

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

Ship To

Same

Tel.: 1 613 632-3336

Item No.	Description	Qty	Qty. Delivered	B/O Qty
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
SSQT34340494	304 SQ TUBE .750 X .049 WALL 20 x 20' ***** ht;9H855	400	160	240
SSQT34340654	TUBE SS304 180 GRIT 3/4" X 3/4" X .065" 20 x 20' ***** ht;TS3041202	400	400	0
SSQ1124	304 SQU 1.500 1 x 12.5' ht;268423	12.5	12.5	0
MP141H	4140 HTSR PLATE 1.00" THICK 2 x 10" x 72" HT: PM94723	434	434	0
MP13441H	4140 HTRS PLATE 1.750" THICK 2 x 10" x 72" HT: PM94381	747	747	0
MP3441H	4140 HTSR TFA PLATE .750 THICK P.M 1 x 2.25" x 64" 1/4	40	40	0

*** Continued on Next Page ***

METAUX SOLUTIONS INC
2625 BOUL JACQUES CARTIER EST
LONGUEUIL, QUEBEC
J4N 1L7 **Tel. : 450 641-3330**

Shipping Order

15/05/2018

Order : 134879
Reference : 39766
Bid : 27221
Ship : PICK UP / PICK UP

Customer : 6323336

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

Ship To

Same

Tel. : 1 613 632-3336

Item No.	Description	Qty	Qty. Delivered	B/O Qty
MP11241H	HT: PM94680 4140 HTSR PLATE 1.5" THICK 1 x 2" x 72"	71	71	φ
MR3841H	HT: PM94823 4140 HTSR .375" DIA 1 X 4' 1 X 5' 1 X 6' ht:186784 ship journey collect jp	15	15	φ

3/4 jours

Shipping : _____
Package No : _____
Merchandise Received: _____
Ref. : _____



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039766**

Supplier: MES002-VC
Metaux Solutions
2625 boul Jacques-Cartier Est
Longueuil
QC
J4N 1L7 Canada
Phone: 800 558 8858
Fax: 514 633 8044

PO No: PO039766

PO Date: 5/1/18

Due Date: 5/10/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
MAY 01 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments: BID 27221

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M304TS0.750W.049		304 Sq Tube .75X.75X.049W : MATERIAL: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBING AS PER ASTM A554 MILL FINISH OR ASTM A269 MILL FINISH receive ft	Firmed	5/10/18	400 ft	0 ft	400 ft	\$3.80/ft	\$1,520.00
2	M304TS0.750W.065		304 Sq Tube .75X.75X.065W : MATERIAL: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBING AS PER ASTM A554 MILL FINISH OR ASTM A269 MILL FINISH receive ft	Firmed	5/10/18	400 ft	0 ft	400 ft	\$2.75/ft	\$1,100.00
3	M304B1.500X1.500		M304 Bar 1.500 x 1.500 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	5/10/18	12 ft	0 ft	12 ft	\$39.80/ft	\$477.60
4	MT-4140-S- 1.000X10.000		AISI 4140 Steel Sheet/Plate	Firmed	5/10/18	12 ft	0 ft	12 ft	\$88.6008333/ft	\$1,063.21

Plex 5/1/18 2:50 PM dart.lavoie.chantal

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
Line Item Note 2 pcs cut at 6 ft length										
5	MT-4140-S-1.750X10.000		AISI 4140 Steel Sheet/Plate	Firmed	5/10/18	12 ft	0 ft	12 ft	\$151.67916/ft	\$1,820.15
Line Item Note 2 pcs cut at 6 ft length										
6	Mt-4140-S-0.750X2.250		4140 Steel Bar 0.750 X 2.250 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft	Firmed	5/10/18	6 ft	0 ft	6 ft	\$20.6666/ft	\$124.00
7	MT-4140-S-1.500X2.000		4140 Steel Bar 1.500 X 2.000 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft	Firmed	5/10/18	6 ft	0 ft	6 ft	\$28.991666/ft	\$173.95
8	M4140H-R0.375		4140 Round Bar .375 : AISI 4140H ROUND BAR PER AISI4140OR ASTM A304-02/-A-434- BC/-A193-03- GRADE B7/-A29- 03/-A322-91 OR UNS#-G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft	Firmed	5/10/18	12 ft	0 ft	12 ft	\$5.85/ft	\$70.20
Grand Total:										\$6,349.11

Order Notes

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.



Plex 5/1/18 2:50 PM dart.lavoie.chantal

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304150.750W.065

PO / BATCH NO.: 039766/5071985

DATE: MAY 16 2019

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 400'
 QUANTITY INSPECTED: 400'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: W.065
 THICKNESS RECEIVED: W.065
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) (N)	
CORRECT MATERIAL PER M-DRAWING	(Y) (N)	<u>ASTM A554-16</u>
CORRECT THICKNESS	(Y) (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) (N)	<u>1/2017 153041202</u>
CORRECT MATERIAL IDENTIFICATION	(Y) (N)	
CORRECT M# ON THE MATERIAL	(Y) (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>9-89 MAY 16 2019</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

FOSHAN VINIMAY STAINLESS STEEL CO., LTD.
 GUOXINJIA ROAD, SOUTH CHINA HURDWARE INDUSTRIAL BASE, DANZAO TOWN, NANHAI DISTRICT,
 FOSHAN CITY, GUANGDONG P. R. CHINA

COMPANY WITH QUALITY ASSURE SYSTEM
ISO9001:2000

FAX: 800-557-6543/2531

FEDERAL RESERVE BANK OF ST. LOUIS

WILL TEST CERTIFICATE

TESTIFICATE 3.1 ACCORDING TO EN 10204

[illegible]

Green Products
The new line of products, including the new 100% recycled paper, is available in a variety of sizes and colors. The new 100% recycled paper is made from 100% recycled paper and is available in a variety of sizes and colors. The new 100% recycled paper is made from 100% recycled paper and is available in a variety of sizes and colors.

宣統元年九月

工部局工程處

上组皆不属何部更属

This report can only be reproduced in full

100



PURCHASE MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBING

FINISH: ASTM A554 MILL FINISH
OR ASTM A269 MILL FINISH

PART NUMBER: M304TS | A.AAA | W | TTT |
| WIDTH | WALL |

PART NUMBER: EG. 0.75" X 0.75" X 0.049 WALL = M304TS0.750W.049

WHERE: A.AAA = WIDTH IN INCHES
.TTT = WALL THICKNESS IN INCHES

RELEASED
2014-05-26

D	"SEAMLESS" REMOVED FROM PURCHASE MATERIAL SPECIFICATION (SEE NCR14-3818)		DB	14.05.20
C	"SEAMLESS" ADDED TO PURCHASE MATERIAL. ASTM A269 ADDED TO FINISH. REASON: SPEC ADDED FOR 1/2" TUBING		AJS	08.10.16
B	DRAWING MOVED TO "B" SIZE BORDER, FINISH ADDED (SEE NCR 08-046 FOR DETAILS).		AJS	08.08.28
A	NEW ISSUE		DS	01.06.08
REV.	DESCRIPTION		BY	DATE
DESIGN	DS	DART AEROSPACE LTD		
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA		
CHECKED		DRAWING NO.	REV. D	
MFG. APPR.		M304TS	SHEET 1 OF 1	
APPROVED		TITLE	SCALE	
DE APPR.		304/316 SQUARE TUBING	NONE	
DATE	14.05.20		COPYRIGHT © 2001 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.				

FORGEWAY STEELCO STEEL CO., LTD.
AND/ORI, PAKISTAN/CHINA, INDUSTRIAL BUILDINGS, BRIDGE, CRANES, TOWERS, INDUSTRIAL
FURNACE, GASOLINE P.A. CHINA

[illegible]

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304BL 500X1500

PO / BATCH NO.: 039266/5071986

DATE: MAY 16 2018

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 12
 QUANTITY INSPECTED: 12
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500
 THICKNESS RECEIVED: 1.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	<u>As per A276</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>Heat # 268423</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 MAY 16 2018</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
(NOTE: AISI 303 NOT ACCEPTABLE)

SPECIFICATION: ASTM A276 OR ASTM A240
PART NUMBER: M304B-TTTT X WWW.WWW
THICK | WIDTH

WHERE "TTTT" = THICKNESS IN INCHES
AND "WWW.WWW" = WIDTH IN INCHES

EG. 0.5" X 3.0" BAR = M304B0.500X3.000
EG. 0.5" X 12.0" PLATE = M304B0.500X12.000

RELEASED
2010-11-30

C	ADDED PLATE TO PURCHASE MATERIAL, ADDED PLATE RELATED SPECIFICATIONS, AND EG: CHANGED TITLE FROM 304/316 BAR TO 304/316 BAR/PLATE	MB	10.11.25
B	REFORMAT DWG. ADD SPECS (2N D6-1)	CP	09.07.15
A	REF PAR 08-020A	PH	09.08.10
REV.	NEW ISSUE	BY	DATE
DESIGN	PH	DESCRIPTION	
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.11.25		
COPYRIGHT © 2005 BY DART AEROSPACE LTD			
THE COMPANY IS NOT RESPONSIBLE FOR ANY AND ALL ERRORS OR OMISSIONS IN THIS DRAWING.			
DRAWING NO. M304B			
HAWKESBURY, ONTARIO, CANADA			
REV. C			
SHEET 1 OF 1			
SCALE			
NTS			
TITLE 304/316 BAR/PLATE			



99082

Client / Eschewer/Amazon/Corbi

Amico di Spedizione: D-VI16001280
L'Espresso 1998/1999

Certificado nr. MEST806705/2016/ ..

Confirms online no. EI18000474

0000-0001-7700-0000

Zeitschrift für Literaturwissenschaft
Theorie und
Kritik der Literatur

PUNZONS DEL COSEDALE
STAMPES DEL WERKSTATT
INSTRUMENTE STAMPES

Produttori: ACCIAIERIE VALBRUNA S.P.A.

Stato di fornitura: Hot rolled - Annealed Cold Drawn

Online nr. 47680 PENN PO18727

Type of Electrolysis: B+AOD
Electrolysis is a method used in AOD for the production of aluminum.

Specific:
Anticompensatory / Reactions / Discrepancy

VSI 0304/304L A.QF
AMS 5647 J S30403 A
ASME SA182 2013 S30400/03 A (0)
ASME SA320 2013 B6 CLASS1 (3)
ASTM A193 2014A B6 CLASS1
ASTM A314 2008 S30400/03
ASTM A473 2001 S30400/03 (6)
NACE MR0103 2010 S30400/03 A
(0)SECTION II PT.A 2013 EDITION
(1)SECTION II PT.A 2013 EDITION
(2)SECTION II PT.A 2018 EDITION
(3)PT.A 2018 EDITION
5) For products machined directly from bar refer also
to chemical analysis only
7) Technical data: 1-2019 Published 2011-06-14

ANSI 394/304L
AMS-QQ-S-783 D 304 A,CF
ASME SA183 2013 B6 CLASS1 (1)
ASME SA478 2013 S30400/03 A (4)
ASTM A282 2013 PRACTICE E
ASTM A920 2011A B6 CLASS1
ASTM A478 2014 S30400/03 A
NACE MR0175 2009 S30400/03 A (7)

AMG 5639 H 330400 A
AM9-QQ-S-763 D 3041 A,CF
ASME SA276 2013 53040003 A,CF (2)
ASTM A182 2014A 33040003 A (5)
ASTM A276 2016 53040003 A,CF (2016)
ASTM A304 2016
MIL-S-882 B/1 304/304L

(2) IF A PRODUCT IS MODIFIED DIRECTLY FROM THE REFERENCE TO ASME SA-178,
(3) SECTION II PART A 2013 EDITION
(4) SECTION II PART A 2013 EDITION
(5) IS ASTM A278
(6) TRANSNAC MR0178190 151663 10000-10000 2008 10 10

Qualità: T-304/304L PENNMET 2000

Marc:

Национальное Бюро

A101

Tolerance: ASTM A484, TABLE A

Publontkum: 304/3041

Kennzeichnung: M4100/M41000

TEST ALLO STATO DI FORNITURA

TEST

Análisi chimica

Analisi chimica

Solution heat treated free from continuous carbide network.
Micro and macro etch test: OK

Vicenza, 21/01/16

il colla salero di stabilimento / der Werksachseversteigerer / Works inspector / l'agente d'ordine

M. Rizzotto, *Rizzotto*

Pagina - 1 di 2

**Acciaierie
Valbruna** S.p.A.



**CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2004) 3.1**

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER

Cliente / Destinatario/Purchaser/Client

Avviso di Spedizione:
Lett. n. 47690 D-VI16001290

Certificato nr: MEST808705/2016/
PENNPO19727

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller/Produzierendes Unternehmen

Ordine nr: 47690 PENNPO19727
Bestell-Nr.
Year order
Contract no.

Conferma ordine nr: E116000474
Werkzeugnummer

Stato di fornitura: Hot rolled, Annealed, Cold Drawn
Lieferzustand / Delivery state
End of finish

Tipo di Elaborazione: E+AOD
Erstellungsbearbeitungsprozess/End of fabrication

Marchio di Fabbrica:
Zusatz des Herstellers
Type mark
Type of finish product

Puntatore del Collaudo:
Bezeichnet die Verantwortliche Person
Inspektor / Hauptinspektor des Testers



Interggranular corrosion test per ASTM A262 print. E: ok.
Absence of cracks at 20 x magnification after bend test.
Reduction ratio = 20,3 : 1
Annealing temperature: 1840°F for 1 h/water.
Material is DFARS Compliant

MRIS
DATE
RECEPTION

Sono state soddisfatte tutte le condizioni richieste
Die gesamte Ausführung entspricht den Anforderungen
The material has been furnished in accordance with the requirements
Le matériau a été livré conforme aux exigences

Controllo antiriscaldamento: OK
Vermeidung von Wärmeeinwirkung: OK
Avoiding heating treatment: OK
Control de calentamiento: OK

Controllo visivo e dimensionale: soddisfa le esigenze
Bauweise und Abmessungen: entsprechen den Anforderungen
Visual inspection and dimensional check: satisfactory
Contrôle visuel et dimensionnel: satisfaisant

Made and manufactured in Italy

No welding or weld repair Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.
The Quality Management System is Certified acc. Pressure Equipment Directive "97/23/EC" Annex 1, 2, 4.3 by TÜV and LLOYD'S
Any act of falsification, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.
Material and/or Valplus grades/products are manufactured with special techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.
The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Product.

Vicenza, 21/01/16
VCC008
(Mod. MCE)

Recepção e entrega do material / der Werkstoffabnahme / Works inspection / L'agent d'usage

M. Rizzotti

Pagina - 2 di 2

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4140H-R0.375
 DATE: MAY 16 2018

PO / BATCH NO.: 039766/SU71991

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 15'
 QUANTITY INSPECTED: 15'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375
 THICKNESS RECEIVED: 0.375
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) (N)	
CORRECT MATERIAL PER M-DRAWING	(Y) (N)	Aston 304
CORRECT THICKNESS	(Y) (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) (N)	Heat # 186784
CORRECT MATERIAL IDENTIFICATION	(Y) (N)	
CORRECT M# ON THE MATERIAL	(Y) (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> DATE: <u>9-89 MAY 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICAT D'ANALYSE

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

8 mai 2018

Description: 4142 CF HEAT TREATED S/R OR STRESS FREE BAR
3/8 RD X 12' R/L Line Total: 23 LB
HEAT: 186784 ITEM: 506029

Specifications:

ASTM A434 CL BC 12
ASTM A304 11
ASTM A29 15
EN 10204 3.1 04
ASTM E112 13

ASTM A193 GR B7 15
ASTM A322 13
ASTM A962 14
ASTM A255 10
ASTM E381 01

ASTM A108 13
ASTM A331 95
MIC2016 12
ASTM E10 15
ASTM E709 14

CHEMICAL ANALYSIS

C	MN	SI	P	S	CR	NI	MO
0.42	0.94	0.26	0.012	0.021	1.02	0.10	0.23
CU	AL	CA					
0.16	0.021	0.0009					

RCPT: R186462

COUNTRY OF ORIGIN : SPAIN

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED	HARDNESS
	KSI	KSI	IN 02 IN	IN AREA	BHN
	126.0	139.0	19.8	60.8	291

IDEAL DIAMETER : 6.426 IN GRAIN SIZE : 7 -

CLEANLINESS

	A		B		C		D	
	THIN MAX	THICK MAX	THIN MAX	THICK MAX	THIN MAX	THICK MAX	THIN MAX	THICK MAX
E45	1.5	0.0	1.0	0.0	0.0	0.0	0.5	0.0

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

STRAND CAST VACUUM DEGASSED
MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL EDDY CURRENT/MAGNETIC TEST PERFORMED
THERMAL TREATMENT: OK
QUENCHED 1562F 45 MINUTES
OIL COOLED 95F START, 112F FINISH
TEMPERED 1202F 150MINUTES, AIR COOLED
MACRO: OK
MICRO1: OK

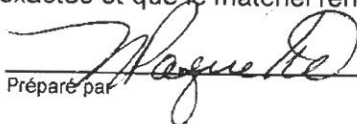
COMMENTS

melt & mfg in USA
free from harmful radioactive contamination
red. ratio 305.9:1

COMMANDE : 134879

Métaux Solutions inc. certifie que les analyses sur ce document sont exactes et que le matériel rencontre les spécifications énumérées.

Préparé par



DART

DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. M4140H-R	REV. A SHEET 1 OF 1
DATE 05.02.21		TITLE 4140 ROUND BAR	SCALE 1:1
A	05.02.21	NEW ISSUE	

PURCHASE MATERIAL: AISI 4140H ROUND BAR

PER AISI 4140 OR ASTM A304-02 / -A-434-BC /

-A193-03-GRADE-B7 / -A29-03 / -A322-91 OR

UNS # - G41400

MINIMUM ULTIMATE TENSILE STRENGTH = 100 KSI

MINIMUM YIELD TENSILE STRENGTH = 66 KSI

PART NUMBER: M4140H-R | D.DDD | WHERE D.DDD = DIAMETER IN INCHES
DIA.EG. $\frac{7}{8}$ " ROUND BAR = M4140H-R0.875RELEASED
05.03.25 #

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7-4140-S-1500X2.000

PO / BATCH NO.: 039766/5071970

DATE: MAY 16 2018

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 6'
 QUANTITY INSPECTED: 6'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500
 THICKNESS RECEIVED: 1.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>As per A-829</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # Pm94823</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.
 RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 MAY 16 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICAT D'ANALYSE

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

11 mai 2018

MSP15000
1-1/2 X 34" X 146"

1.00

2,147.00

0.00

PLATE 4140/42 PREHARD

ASTM A-829
DFARS Compliant
PLATE# : 426495a
Country of Origin SLOVENIA

PM HEAT# : 94823

BHN 294.00

C -	0.4000	Mn -	0.7800	P -	0.0080	S -	0.0005	Si -	0.2340	Ni -	0.1000
Cr -	0.9800	Mo -	0.1500	Cu -	0.2020	V -	0.0330				

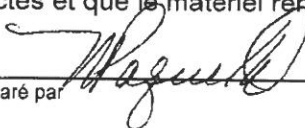
ITEM 7: 1 X 2" X 72"

COMMANDE : 134879

REF : 39766

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Préparé par



8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-(T.TTT)x(W.WWW)
WHERE "T.TTT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

DART AEROSPACE Hawthornbury, Ontario, Canada	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO.	REV.
MT-4140-S	A
TOOL NO.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES UNLESS OTHERWISE SPECIFIED: FRACTIONS ± 1/8 DECIMALS ± 0.01 ANGLES ± 1° SURFACE FINISH: RA 1.6 ROUGHNESS: 10	
INITIALS AND DATE	
DESIGNED BY: VM 2/13/2018	SCALE: NTS
CHECKED BY: VM 02/13/2018	SCALE: NTS
APPROVED BY: DD 02/13/2018	SCALE: NTS
APPROVED BY: ML 02/14/2018	
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8 7 6 5 4 3 2 1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-S-0.750x2.250

PO / BATCH NO.: 039766/5071989

DATE: MAY 16 2018

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 61
 QUANTITY INSPECTED: 61
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750
 THICKNESS RECEIVED: 0.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="radio"/> N <input type="radio"/>	<u>Astm A-829</u>
CORRECT THICKNESS	Y <input checked="" type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="radio"/> N <input type="radio"/>	<u>Heat # Pm 94680</u>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.
 RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

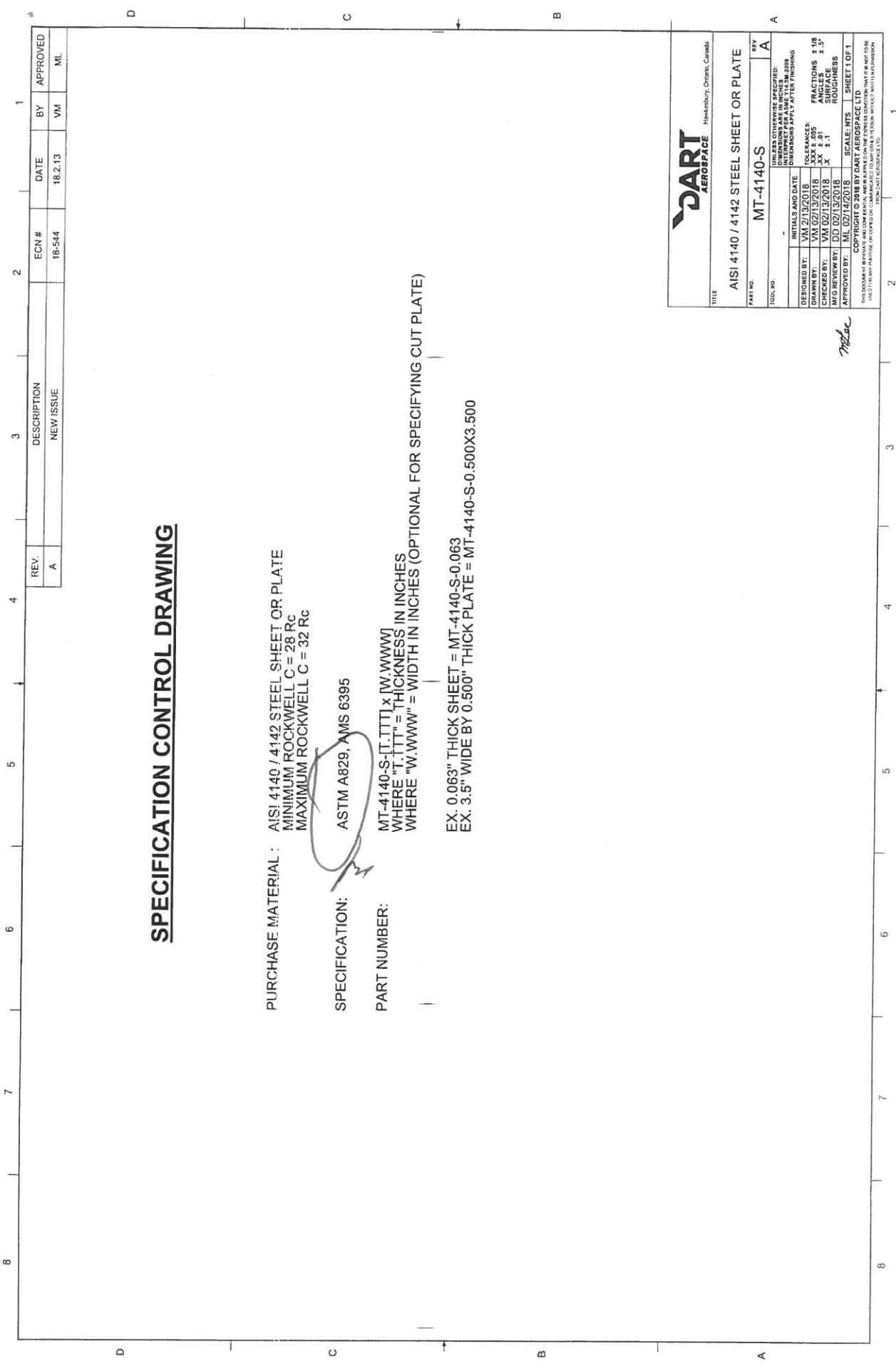
QC 18 INSPECTION

ENGINEERING SIGNOFF (if required)

INSPECTED BY: DAS
11
 DATE: 9-MAY 16 2018

SIGNED OFF BY: _____
 DATE: _____

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SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-(T.TTT) x (W.WWW)
WHERE "T.TTT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML



TITLE
AISI 4140 / 4142 STEEL SHEET OR PLATE

PART NO.
MT-4140-S

TOOL NO.
-

INITIALS AND DATE
DESIGNED BY: VM 2/13/2018
DRAWN BY: VM 02/13/2018
CHECKED BY: VM 02/13/2018
MFG REVIEW BY: DD 02/13/2018
APPROVED BY: ML 02/14/2018

UNDER DIMENSIONS APPLICABLE TO DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED DIMENSIONS APPLY AFTER FINISHING
TOLERANCES
FRACTIONS ± 1/8
DECIMALS ± .005
ANGLES ± .1°
SURFACE
ROUGHNESS
SCALE: NTS
SHEET 1 OF 1

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ML

CERTIFICAT D'ANALYSE

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

11 mai 2018

MSP07500 1.00 1,075.00 0.00
3/4 X 33 3/4" X 144 15/16" PLATE 4140/42 PREH
ASTM A-829
DFARS Compliant
PLATE#: 425347b PM HEAT#: 94680 BHN 318.00
Country of Origin SLOVENIA
C - 0.4000 Mn - 0.7840 P - 0.0080 S - 0.0006 Si - 0.2120 Ni - 0.1300
Cr - 0.9800 Mo - 0.1600 Cu - 0.2010 V - 0.0410

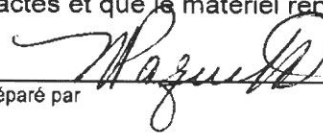
ITEM 6: 1 X 2.25" X 64"1/4

COMMANDE : 134879

REF : 39766

Métaux Solutions inc. certifie que les analyses sur ce document sont exactes et que le matériel rencontre les spécifications énumérées.

Préparé par



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-5-1.50X10.000

PO / BATCH NO.: 039766/5071988

DATE: MAY 16 2018

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.750
 THICKNESS RECEIVED: 1.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>As per A829</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat # Pm74381</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>9-89 MAY 16 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-(T.TTT)x(W.WWW)
WHERE "T.TTT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500



Markham, Ontario, Canada

TITLE
AISI 4140 / 4142 STEEL SHEET OR PLATE

PART NO. MT-4140-S REV. A

TOOL NO. -
DIMENSIONS ARE IN INCHES
DIMENSIONS ARE IN MILLIMETERS
DIMENSIONS APPLY AFTER FINISHING

DESIGNED BY:	DATE	TOLERANCES
VM	2/13/2018	XXX ± .005
CHECKED BY:	DATE	ANGLES
VM	02/13/2018	XX ± .1
WFG REVIEW BY:	DATE	SURFACE
DD	02/13/2018	X ± .1
APPROVED BY:	DATE	ROUGHNESS
ML	02/14/2018	SCALE: NTS

SHEET 1 OF 1
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Handwritten signature

8 7 6 5 4 3 2 1

CERTIFICAT D'ANALYSE

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

11 mai 2018

Product Description

MSP17500

1-3/4 X 34 1/4" X 146 1/8"

ASTM A-829

DFARS Compliant

PLATE#: 421477B

Country of Origin SLOVENIA

C - 0.4100 Mn - 0.7910
Cr - 0.9900 Mo - 0.1500

Shipped Pcs
1.00

Shipped Lbs
2,519.00

Back Ordred
0.00

PO LINE

PLATE 4140/42 PREH.

PM HEAT#: 94381

BHN 295.00

P - 0.0070 S - 0.0003 Si - 0.2460 Ni - 0.2000
Cu - 0.2230 V - 0.0340

ITEM 5: 2 X 10" X 72"

COMMANDE : 134879

REF : 39766

Métaux Solutions inc. certifie que les analyses sur ce document sont exactes et que le matériel rencontre les spécifications énumérées.

Préparé par



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT 4140-S-1.000X12.000
 DATE: MAY 16 2019

PO / BATCH NO.: 039766/5071987

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
 THICKNESS RECEIVED: 1.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	<u>Astm A829</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>Heat # Pm94723</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-88 MAY 16 2019</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICAT D'ANALYSE

DART AEROSPACE LTD
 1270, ABERDEEN STREET
 HAWKESBURY, ONTARIO
 K6A 1K7

11 mai 2018

MSP10000	1.00	1,446.00	0.00
1 X 34 1/16" X 146"	PLATE 4140/42 PREHARD		
ASTM A-829			
DFARS Compliant			
PLATE# :	425896A	PM HEAT# :	94723
Country of Origin	SLOVENIA	BHN	300.00
C -	0.4050	Mn -	0.7560
P -	0.0080	S -	0.0010
Cr -	0.9700	Mo -	0.1500
Cu -	0.2250	V -	0.0400
Si -	0.2250	Ni -	0.1300

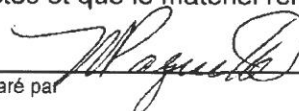
ITEM 4: 2 X 10" X 72"

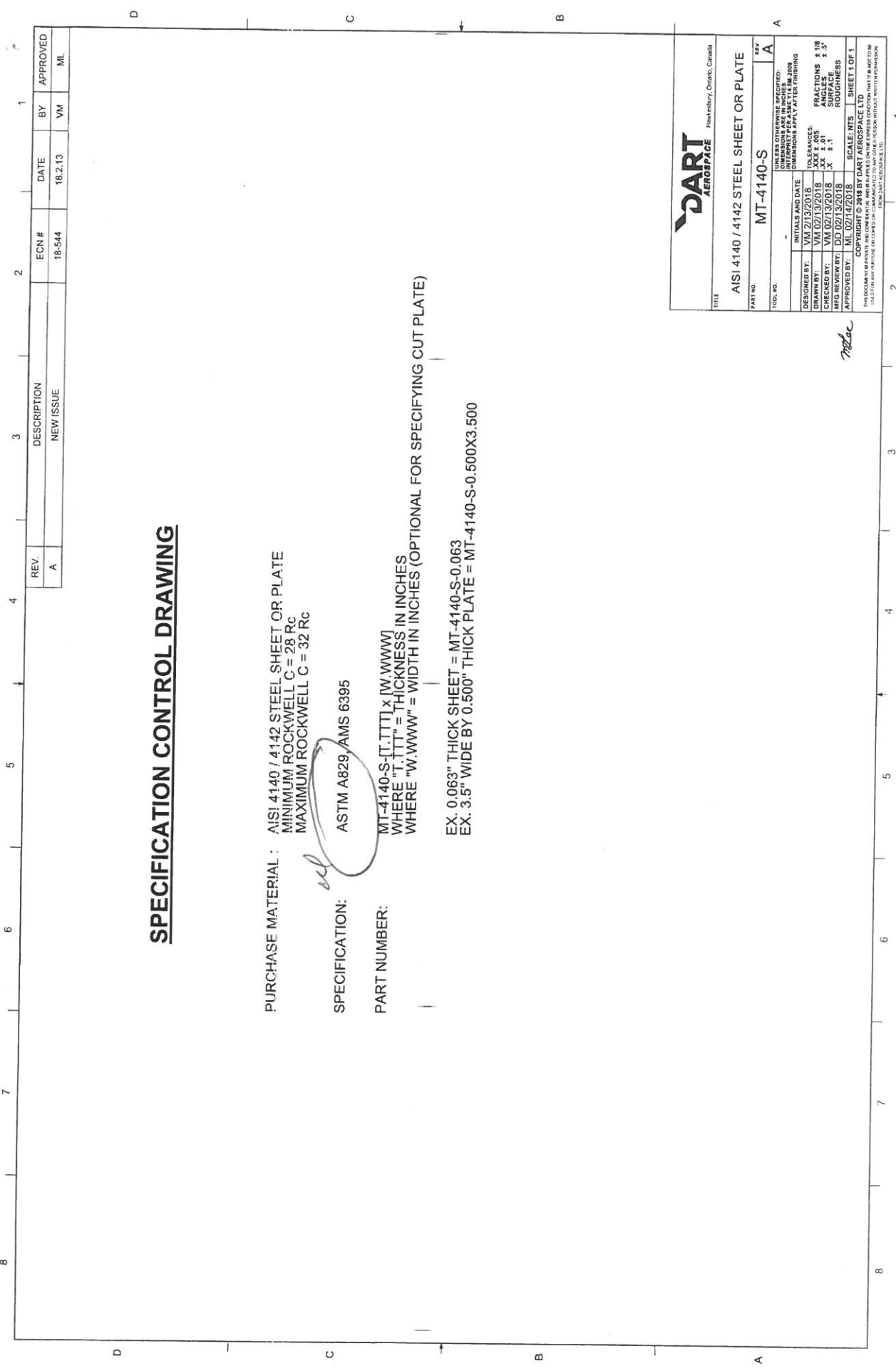
COMMANDE : 134879

REF : 39766

Métaux Solutions inc. certifie que les analyses sur ce document sont exactes et que le matériel rencontre les spécifications énumérées.

Préparé par





SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: *del* ASTM A829/AMS 6395

PART NUMBER: MT-4140-S-(T.TTT) x (W.WWW)
WHERE "T.TTT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

DART AEROSPACE Hemelock, Ontario, Canada	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO. MT-4140-S	REV A
TOOL NO.	
DESIGNED BY: VM 2/13/2018 DRAWN BY: VM 02/13/2018 CHECKED BY: VM 02/13/2018 MFG REVIEW BY: DD 02/13/2018 APPROVED BY: ML 02/14/2018	
SHEET 1 OF 1	
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304T50.730W.049
DATE: MAY 16 2018

PO / BATCH NO.: 039766/5071984

MATERIAL CERT REC'D: yes
QUANTITY RECEIVED: 160'
QUANTITY INSPECTED: 160'
QUANTITY REJECTED: 0

THICKNESS ORDERED: W.049
THICKNESS RECEIVED: W.049
SHEET SIZE ORDERED: N/A
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) (N)	
CORRECT MATERIAL PER M-DRAWING	(Y) (N)	<u>Aston A554-10</u>
CORRECT THICKNESS	(Y) (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) (N)	<u>Heat # 9H855</u>
CORRECT MATERIAL IDENTIFICATION	(Y) (N)	
CORRECT M# ON THE MATERIAL	(Y) (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>9-89</u>	SIGNED OFF BY: _____		
DATE: <u>MAY 16 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

PURCHASE MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBING

FINISH:

ASTM A554 MILL FINISH
OR ASTM A269 MILL FINISH

PART NUMBER:

M304TS | A.AAA | W.TTT
| WIDTH | WALL

PART NUMBER:

EG. 0.75" X 0.75" X 0.049 WALL = M304TS0.750W.049

WHERE:

A.AAA = WIDTH IN INCHES

.TTT = WALL THICKNESS IN INCHES

RELEASED
2014-05-26

D	*SEAMLESS* REMOVED FROM PURCHASE MATERIAL SPECIFICATION (SEE NOR14-3818)			DB	14.05.20
C	*SEAMLESS* ADDED TO PURCHASE MATERIAL. ASTM A269 ADDED TO FINISH. REASON: SPEC ADDED FOR 1/2" TUBING			AJS	08.10.16
B	DRAWING MOVED TO "B" SIZE BORDER. FINISH ADDED (SEE NOR 08-045 FOR DETAILS)			AJS	08.08.28
A	NEW ISSUE			DS	01.06.08
REV.	DESCRIPTION			BY	DATE
DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWN	DB				
CHECKED	DS				
MFG. APPR.	M304TS				
APPROVED	TITLE				
DE APPR.	304/316 SQUARE TUBING	REV. D SHEET 1 OF 1 SCALE NONE			
DATE	14.05.20	COPYRIGHT © 2001 BY DART AEROSPACE LTD. THIS DOCUMENT IS UNCLASSIFIED AND IS NOT TO BE RELEASED OR DISCLOSED TO THE PUBLIC OR ANY OTHER PARTY WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.			

Kingmaker Steel Co., Inc.

Stainless Steel Tube and Pipe

133 Belmont Drive, Somerset, NJ 08873-1203
Tel.: (732) 302-1800, Fax: (732) 302-1822

001556

Date: 1/11/2018
Invoice No: KM2018/0105
Purchase P009302
Order No:
Sold To:

Material Certification

ISO 9001:2015
ISO 14001:2004
EN 10204/3.1B

Ship To:

Stainless Steel T.I.G. Welded Tubing.

Country of Melt: Taiwan, Country of Origin: Taiwan.

Item	Description	Heat No.	Finish	Specification	Grade
1:	3/4" SQ X 0.049" W X 20'	9H855	MF	ASTM A554-16	MT-304
2:	3/4" SQ X 0.120" W X 20'	5H982	MF	ASTM A554-16	MT-304
3:	1-1/2" SQ X 0.180" W X 20'	5G289	MF	ASTM A554-16	MT-304
4:	2" SQ X 0.180" W X 20'	5H035	MF	ASTM A554-16	MT-304
5:	3" SQ X 0.120" W X 20'	TBH100713	MF	ASTM A554-16	MT-304

CHEMICAL PROPERTIES

	C	Si	Mn	P	S	Cr	Ni	Mo	N	Cu
1:	.015	.430	1.10	.035	.003	18.21	8.07			
2:	.020	.390	1.43	.029	.010	18.05	8.03			
3:	.018	.390	1.38	.033	.004	18.27	8.05			
4:	.024	.370	1.43	.031	.005	18.19	8.04			
5:	.028	.430	1.21	.033	.003	18.20	8.09			

MECHANICAL PROPERTIES

	Tensile (N/mm2)	Yield (N/mm2)	Elong. (%)	Hardness (HRB)	Flattening	Hydrostatic	Eddy Current
1:	698.00	352.00	46.00	89.50			
2:	641.00	297.00	53.00	86.00			
3:	654.00	327.00	52.00	89.00			
4:	628.00	292.00	53.00	85.00			
5:	668.00	326.00	51.00	88.00			

WE HEREBY CERTIFY THAT TO THE BEST OF OUR KNOWLEDGE, THE MATERIAL LISTED ABOVE HAS BEEN MANUFACTURED IN ACCORDANCE WITH AND MEET THE ABOVE APPLICABLE SPECIFICATIONS AND GRADES, AND ALSO THAT THE MATERIAL WAS PRODUCED IN A MERCURY FREE ENVIRONMENT. THE CHEMICAL COMPOSITIONS OF THE MATERIAL ARE IN ACCORDANCE WITH ASTM A240.